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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,418	06/29/2001	Janne Aaltonen	367.40304X00	5219

20457 7590 06/17/2005

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EXAMINER	
SHANNON, MICHAEL R	

ART UNIT	PAPER NUMBER
2614	

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/893,418	AALTONEN ET AL.	
	Examiner	Art Unit	
	Michael R. Shannon	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 June 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☒ Claim(s) *18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 June 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *20011024, 20010629*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1 are rejected under 35 U.S.C. 102(a) as being anticipated by Rebhan et al (WO 99/33076), cited by applicant.

Regarding claim 1, the claimed "method for locating a terminal for delivery of content in a broadcast network" is met as follows:

- The claimed step of "associating the terminal with a transmitter operable in another network" is met by the secondary bi-directional transfer network 130 being used to transfer the information of the locality of the information consumer to the information transfer point 110 [page 18, lines 30-33]. The secondary bi-directional transfer network (such as NMT, GSM, PSTN, Internet, etc) [page 4, line 32 – page 5, line 2] is associated with the broadcasting receiver of the information consumer 190 through the transceiver 192 [page 16, lines 19-22].
- The claimed step of "interrogating the another network to determine the location of the transmitter" is met by the information transfer point 110 interrogating the broadcasting receiver 190 to establish the "transfer

configuration information" via the secondary bidirectional transfer network 130 [page 5, lines 11-19].

- The claimed step of "delivering the content to the terminal at the location of the transmitter" is met by the information transfer point 110 transferring the information to the digital video broadcasting receiver 190 over the selected transmitter (as discover by the "transfer configuration information") in the digital video broadcasting system [page 5, line 33 – page 6, line 3].

Regarding claim 2, the claimed "system for delivering content to a terminal in a broadcast network" is met as follows:

- The claimed "at least one terminal in a broadcast network, the terminal being associated with a transmitter in another network" is met by the broadcasting receiver 190, which is associated with the secondary bi-directional transfer network 130 via transceiver 192 [page 16, lines 19-22].
- The claimed "broadcast network includes a processor operable to interrogate the another network to determine the location of the transmitter and thereby deliver content to the terminal at the determined location" is met by the information transfer point 110 interrogating the broadcasting receiver 190 to establish the "transfer configuration information" via the secondary bidirectional transfer network 130 [page 5, lines 11-19]. Finally, the delivery is met by the information transfer point 110 transferring the information to the digital video broadcasting receiver 190 over the selected

transmitter (as discover by the "transfer configuration information") in the digital video broadcasting system [page 5, line 33 – page 6, line 3].

Regarding claim 3, the claimed "apparatus for delivering content to a terminal in a broadcast network" is met as follows:

- The claimed "processor operable to interrogate another network to determine the location of a transmitter associated with the terminal and deliver content to the terminal at the determined location" is met by the information transfer point 110 interrogating the broadcasting receiver 190 to establish the "transfer configuration information" via the secondary bidirectional transfer network 130 [page 5, lines 11-19]. Finally, the delivery is met by the information transfer point 110 transferring the information to the digital video broadcasting receiver 190 over the selected transmitter (as discover by the "transfer configuration information") in the digital video broadcasting system [page 5, line 33 – page 6, line 3].

Regarding claim 4, the claimed "head end apparatus for use in a first multi-transmitter broadcast network" is met as follows:

- The claimed "terminal locator operable in response to a request to deliver content to a terminal in the first network to obtain terminal location information from a second, different network" is met by the information transfer point 110 interrogating the broadcasting receiver 190 to establish the "transfer configuration information" via the secondary bidirectional transfer network 130 [page 5, lines 11-19]. Finally, the delivery is met by

the information transfer point 110 transferring the information to the digital video broadcasting receiver 190 over the selected transmitter (as discover by the "transfer configuration information") in the digital video broadcasting system [page 5, line 33 – page 6, line 3].

- The claimed "memory having stored therein transmitter location information and a controller operable in response to the request to transmit content to determine from the terminal and transmitter location information a suitable transmitter to deliver the content to the terminal" is met by the access information database 120, which is used to identify the secondary bi-directional transfer network 130 and access in that network to an information consumer [page 16, lines 22-25]. The access information is then used to transfer the information to the digital video broadcasting receiver 190 over the selected transmitter (as discover by the "transfer configuration information") in the digital video broadcasting system [page 5, line 33 – page 6, line 3].

Regarding claim 5, the claimed "apparatus as claimed in claim 4, wherein the terminal locator is further operable to identify said second, different network type from said request" is met by the access information database's 120 ability to identify the secondary bi-directional transfer network 130 to the information transfer point 110 [page 16, lines 22-25].

Regarding claim 6, the claimed "apparatus as claimed in claim 4, wherein the terminal locator is further operable to determine a source of said request" is met by the

consumer request for information and the information transfer point retrieving the requested information and transferring the information over the DVB system to the digital video broadcasting receiver that requested the information [page 9, lines 20-28].

Regarding claim 7, the claimed "apparatus as claimed in claim 4, further including a router connectable to a plurality of transmitters and operable to deliver the content to the suitable transmitter" is met by the inherent router taught by the routing of the requested information to the appropriate transmitter (based on the transfer configuration information) [page 9, lines 29-34].

Regarding claim 8, the claimed "terminal for use with a first multi-transmitter broadcast network" is met as follows:

- The claimed "receiver operable to receive content transmitted by a selected one of a plurality of transmitters of the first network" is met by the DVB receiver 191 of the broadcasting receiver 190 for receiving broadcast information from the DVB network 140 [page 16, lines 19-22]. The DVB receiver 191 can receive information over a selected transmitter of the DVB network 140 [page 9, lines 29-34].
- The claimed "further transmitter connected to a second network from which the first network derives information relating to the location of the further transmitter to facilitate selection of the one transmitter" is met by the broadcasting receiver 190, which is associated with the secondary bi-directional transfer network 130 via transceiver 192 [page 16, lines 19-22]. The broadcasting receiver 190 then provides the information transfer point

110, via the secondary bi-directional transfer network, with transfer configuration information that identifies the selected transmitter for delivery of information over the DVB network 140 [page 9, lines 11-13 and 29-34].

Regarding claim 9, the claimed "terminal as claimed in claim 8, wherein the further transmitter provides a back channel to send a request for specific content to the first network" is met by the back channel provided in the secondary bidirectional transfer network. The broadcasting receiver 190 requests information from the information provider 100 and information transfer point 110 via transceiver 192 and secondary bi-directional transfer network 130 [page 9, lines 7-13].

Regarding claim 10, the claimed "terminal as claimed in claim 8, wherein the further transmitter is included in a mobile station interfaced with the terminal" is met by the transceiver 192, which is interfaced with the broadcasting receiver 190 [page 16, lines 19-21].

Regarding claim 11, the claimed "system for delivering content to a mobile terminal" is met as follows:

- The claimed "first broadcast network having a plurality of transmitters" is met by the DVB network 140 with multiple transmitters to cells 145, 146, and 147 [page 16, lines 16-17].
- The claimed "at least one terminal, the terminal having a receiver for receiving content from the first network, and in proximity thereto a further transmitter connected to a second network from which the first network derives information relating to the location of the further transmitter,

wherein the selection of a transmitter to deliver content to the terminal is made in accordance with the location information" is met by the DVB receiver 191 of the broadcasting receiver 190 for receiving broadcast information from the DVB network 140 [page 16, lines 19-22]. The DVB receiver 191 can receive information over a selected transmitter of the DVB network 140 [page 9, lines 29-34]. Also, the further transmitter is met by the broadcasting receiver 190, which is associated with the secondary bi-directional transfer network 130 via transceiver 192 [page 16, lines 19-22]. The broadcasting receiver 190 then provides the information transfer point 110, via the secondary bi-directional transfer network, with transfer configuration information that identifies the selected transmitter for delivery of information over the DVB network 140 [page 9, lines 11-13 and 29-34].

Regarding claim 12, the claimed "system as claimed in claim 11, wherein the further transmitter is integrated with the terminal" is met by the transceiver 192, which is a part of the broadcasting receiver 190 [page 16, lines 19-21].

Regarding claim 13, the claimed "system as claimed in claim 11, wherein the second network is a public land mobile network" is met by the different secondary bi-directional transfer networks proposed for use in this system, such as NMT, GSM, PSTN, Internet, etc. [page 4, line 32 – page 5, line 2].

Regarding claim 16, the claimed "system as claimed in claim 11, wherein the further transmitter provides location information" is met by the consumer (broadcasting receiver 190) providing the information transfer point 110, via the secondary bi-

directional transfer network 130, with transfer configuration information that identifies the location of the consumer [page 9, lines 11-13].

Regarding claim 17, the claimed "system as claimed in claim 16, wherein the location information is obtained from a global positioning system receiver" is met by the locality information (transfer configuration information) being acquired using GPS technology and sent to the information transfer point 110 via the secondary bidirectional transfer network 130 [page 18, line 30 – page 19, line 2].

Regarding claim 18, the claimed "method of delivering content using a selected transmitter of a first broadcast network to a first terminal in proximity to a second terminal in a second network" is met as follows:

- The claimed step of "deriving location information relating to the second terminal from the second network" is met by the information transfer point 110 interrogating the broadcasting receiver 190 to establish the "transfer configuration information" via the secondary bidirectional transfer network 130 [page 5, lines 11-19].
- The claimed step of "utilizing that information in the selection of a suitable transmitter" is met by the information transfer point 110 transferring the information to the digital video broadcasting receiver 190 over the selected transmitter (as discover by the "transfer configuration information") in the digital video broadcasting system [page 5, line 33 – page 6, line 3].

Regarding claim 20, the claimed "method as claimed in claim 18, wherein the location information is derived from co-ordinates transmitted by the second terminal" is

met by the locality information (transfer configuration information) being acquired using GPS technology (coordinates of the sending device) and sent to the information transfer point 110 via the secondary bidirectional transfer network 130 [page 18, line 30 – page 19, line 2].

Regarding claim 21, the claimed "apparatus of claim 5, wherein the terminal locator is further operable to determine a source of said request" is met by the consumer request for information and the information transfer point retrieving the requested information and transferring the information over the DVB system to the digital video broadcasting receiver that requested the information [page 9, lines 20-28].

Regarding claim 22, the claimed "apparatus as claimed in claim 5, further including a router connectable to a plurality of transmitters and operable to deliver the content to the suitable transmitter" is met by the inherent router taught by the routing of the requested information to the appropriate transmitter (based on the transfer configuration information) [page 9, lines 29-34].

Regarding claim 23, the claimed "apparatus as claimed in claim 6, further including a router connectable to a plurality of transmitters and operable to deliver the content to the suitable transmitter" is met by the inherent router taught by the routing of the requested information to the appropriate transmitter (based on the transfer configuration information) [page 9, lines 29-34].

Regarding claim 24, the claimed "terminal as claimed in claim 9, wherein the further transmitter is included in a mobile station interfaced with the terminal" is met by

the transceiver 192, which is interfaced with the broadcasting receiver 190 [page 16, lines 19-21].

Regarding claim 25, the claimed "system as claimed in claim 12, wherein the second network is a public land mobile network" is met by the different secondary bi-directional transfer networks proposed for use in this system, such as NMT, GSM, PSTN, Internet, etc. [page 4, line 32 – page 5, line 2].

Regarding claim 26, the claimed "system as claimed in claim 12, wherein the further transmitter provides location information" is met by the consumer (broadcasting receiver 190) providing the information transfer point 110, via the secondary bi-directional transfer network 130, with transfer configuration information that identifies the location of the consumer [page 9, lines 11-13].

Regarding claim 27, the claimed "system as claimed in claim 13, wherein the further transmitter provides location information" is met by the consumer (broadcasting receiver 190) providing the information transfer point 110, via the secondary bi-directional transfer network 130, with transfer configuration information that identifies the location of the consumer [page 9, lines 11-13].

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 14-15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rebhan et al (WO 99/33076), cited by applicant.

Regarding claim 14, the Rebhan reference teaches all of that which is discussed above with regards to claim 13. The Rebhan reference does not, however, expressly disclose that the location information is derived from a Home Location Register of the public land mobile network. The Rebhan reference does suggest the use of other methods of locating the information consumer 190, such as information that the cell based secondary bi-directional transfer network 130 generates [page 19, lines 5-7]. However, Rebhan does not disclose these "other methods" expressly. The examiner takes Official Notice that is it notoriously well known in the art to use Home Location Register's to determine the location of mobile devices in a mobile network. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to utilize a HLR for deriving location information, in order to use an already existing technology that is commonly used within a mobile network for recognizing subscriber location information.

Regarding claim 15, the Rebhan reference teaches all of that which is discussed above with regards to claim 13. The Rebhan reference does not, however, expressly disclose that the location information is derived by base station triangulation. The Rebhan reference does suggest the use of other methods of locating the information consumer 190, such as information that the cell based secondary bi-directional transfer network 130 generates [page 19, lines 5-7]. However, Rebhan does not disclose these "other methods" expressly. The examiner takes Official Notice that is it notoriously well

known in the art to use base station triangulation to determine the location of mobile devices in a mobile network. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to utilize base station triangulation for deriving location information, in order to use an already existing technology that is commonly used within a mobile network for recognizing subscriber location information.

Regarding claim 19, the Rebhan reference teaches all of that which is discussed above with regards to claim 18. The Rebhan reference does not, however, expressly disclose that the location information is derived from a Home Location Register of the second network. The Rebhan reference does suggest the use of other methods of locating the information consumer 190, such as information that the cell based secondary bi-directional transfer network 130 generates [page 19, lines 5-7]. However, Rebhan does not disclose these "other methods" expressly. The examiner takes Official Notice that is it notoriously well known in the art to use Home Location Register's to determine the location of mobile devices in a mobile network. Therefore, the examiner submits that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to utilize a HLR for deriving location information, in order to use an already existing technology that is commonly used within a mobile network for recognizing subscriber location information.

Claim Objections

5. Claim 18 is objected to because of the following informalities: Claim 18 uses contains an apparent misspelling of the word "utilising", please correct this to read "utilizing". Appropriate correction is required.

Drawings

6. The drawings are objected to because Fig 3 and Fig 4 seem to have been misnumbered. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Moura et al (USP 5,586,121) disclose a system for hybrid access to asymmetric networks for the delivery of information with an up-stream PSTN connection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael R. Shannon who can be reached at (571) 272-7356 or Michael.Shannon@uspto.gov. The examiner can normally be reached by phone Monday through Friday 8:00 AM – 5:00PM, with alternate Friday's off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached at (571) 272-7353.

Any response to this action should be mailed to:

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Knox Building
501 Dulany Street
Alexandria, VA 22314

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to customer service whose telephone number is **(571) 272-2600**. .

Michael R Shannon
Examiner
Art Unit 2614

Michael R Shannon
June 10, 2005

JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600